

BULLETIN

OF

THE JOHNS HOPKINS HOSPITAL

Entered as Second-Class Matter at the Baltimore, Maryland, Postoffice.

Vol. XIV.—No. 149.]

BALTIMORE, AUGUST, 1903.

[Price, 15 Cents.]

CONTENTS.

	PAGE
Bichat. By WILLIAM SYDNEY THAYER, M. D.,	197
Some Early Autopsies in the United States. By WALTER R. STEINER, M. D.,	201
A Case of Neuro-Fibromatosis (Von Recklinghausen's Disease) with Paralysis and Muscular Atrophy of Arms and Legs. By H. M. THOMAS, M. D.	204
The Cure of the more Difficult as well as the Simpler Inguinal Ruptures. By W. S. HALSTED, M. D.,	208

	PAGE
The Pathology of Smallpox. By WM. ROYAL STOKES, M. D.,	214
Method of Instruction in Surgical Pathology. By J. C. BLOODGOOD, M. D.,	220
Summaries or Titles of Papers by Members of the Hospital or Medical School Staff Appearing Elsewhere than in the BULLETIN,	222
Notes on New Books	224

BICHAT.¹

BY WILLIAM SYDNEY THAYER, M. D.,

Associate Professor of Medicine, The Johns Hopkins University, Baltimore.

It is fitting that in 1902, the one hundredth anniversary of the death of Bichat, we should contemplate for a moment the career of one of the most remarkable men of modern times. Marie François Xavier Bichat was born in Thoirette in the province of Bresse, now Jura, on the 14th of November, 1771. His father was a physician and mayor of Poncein in Bugey. The early life of young Bichat appears to have been uneventful. It was the wish of the father that his son should follow in his footsteps, and whatever advantages one may gain from being brought up in a medical atmosphere the young man seems to have had. Bichat was brilliant from infancy and history shows that he was a striking exception to the common rule, in that this youthful precocity was in no way delusive. At school in Nantua and at the Seminary of Saint Yrénée in Lyon, he gained prizes and honors, and soon manifested a tendency toward mathematics and the natural sciences, especially physics and natural history. Beginning the study of anatomy at the hospital in Lyon under the direction of

the celebrated Petit, he made good progress despite the fact that he appears at times to have allowed his exuberant energy and spirits to carry him into channels which deviated somewhat from those which ordinarily lead to a career in science. As Levacher² says, he was at this period more fitted to take a rapid bird's-eye view of all parts of the subject than to devote himself to the profound study of a single branch. But his memory and power of comprehension were remarkable, and early in his career he began to apply the accurate methods of thought and investigation which he had learned in mathematics and physics to the study of the structure and functions of man.

Returning home to pursue his surgical work with his father, he was soon drawn again to Lyon and to his mathematical studies, without, however, abandoning anatomy. But in 1793, the stormy days of the Revolution closed the doors of all institutions of learning at Lyon and drove Bichat forever from the scenes of his boyhood. After a short sojourn in Bourg he went

¹ Read before the Johns Hopkins Historical Society, December 8, 1902.

² Levacher de la Feutrie, *Éloge de Bichat*, *Mém. Soc. d'émulat*, Par., 1803, v, pp. xxvii-lxiv.

to Paris to continue his studies which were to fit him for the position of surgeon in the army. Arriving in Paris without friends or letters of introduction he devoted himself especially to the clinic of the celebrated surgeon Desault, to whose attention he was brought soon after his arrival, through circumstances happily related by Buisson.³ "It was an established custom in the school of Desault that certain chosen pupils should undertake to collect in turn the public lesson and prepare an extract. This extract was read after the lesson of the following day; and these exercises, presided over by the associate surgeon, had the double advantage of bringing a second time before the pupils the useful precepts which they should absorb, and of making up for the sufficiently common



inattention of the masses during the first lesson. One day when Desault had spoken for a long time on a fracture of the clavicle, and had demonstrated the utility of his bandage, applying it at the same time to a patient, the pupil whose duty it was to collect these details happened to be absent. Bichat offered to take his place. The reading of his extract caused a real sensation. The purity of his style, the precision and clearness of his ideas, the scrupulous exactness of his résumé were characteristic rather of the professor than the pupil. He was heard with extraordinary attention and left showered with praise and repeated applause." When informed of the incident by his associate Manoury, Desault straightway sought the acquaintance of this promising disciple, in whom he soon recognized a man of genius. The master not only opened

his house to the pupil, but practically adopted him as a son, and throughout the remaining years of his life Bichat was associated with all the work of his teacher. This was the turning point in his life. His association with Desault opened to him the opportunity for a scientific career to which his whole energy was afterwards devoted.

In 1795 Desault died. Though a great sorrow to Bichat, the death of his master and benefactor in no way interrupted his career. He continued to live with Desault's widow who thenceforth regarded him as a son. From the death of Desault, Bichat gave himself up to a career of unremitting activity such as has rarely been equaled. In the very year of Desault's death he published his journal with an historical notice of his life and letters, and later edited his surgical works. But his main energies were devoted to the study of anatomy. The knowledge of anatomy he found in a condition which may justly be called chaotic. As one biographer has said,⁴ "The general anatomy of man was unknown." Much that was taught consisted of a mass of hypothetical or dogmatic statements which had been handed down from master to pupil for ages. In the words of Husson,⁵ "Up to that time bristling with scholastic minutiae, anatomy repelled too often by its dryness the young who were destined to the study of the healing art. We cannot even to-day" [the year of Bichat's death] "recall without a sensation of pain all those multiple divisions, those fatiguing descriptions, that conventional and often incomprehensible language which constituted then the science of anatomy. Bichat was the first to leave the common path; he presented anatomy in a new point of view; studied the general organization of man in the simple tissues of which he is composed, divided the living economy into various systems, and by accumulating facts, by bringing observation to bear on experience, he broadened the limits of science and built for himself a monument which brings him lasting renown." Bichat's great work consisted in the introduction into anatomy and physiology of methods of accurate, systematic observation and experiment, methods similar to those which distinguished the later clinical schools of Laennec, Louis, and the physiological studies of Claude Bernard. "Anatomy," said he one day to his colleagues, "is not as they teach it to us, and physiology is a science to be made over again."⁶ Bichat devoted himself literally day and night to his studies, and unmoved by the stirring and distracting incidents of this turbulent period, lived among his cadavers, writing the protocols of his observations and experiments in the small hours of the night. He soon gathered about him enthusiastic pupils and friends to whom in 1797 he gave his first course in anatomy. "From this moment," says Levacher,⁷ "one must measure his success by his productions, and his years by his successes."

⁴ Knox: *Lancet*, Lond., 1854, ii, 393.

⁵ Notice historique sur la vie et les travaux de Marie-Fr.-Xav.-Bichat, in *Traité des membranes &c.* par X. Bichat. Nouvelle édition augmentée d'une notice &c. par M. Husson., Par., 8°, Ann. xi, 1802.

⁶ Pariset: Discours à l'inauguration de la statue de Bichat à Bourg. *Gaz. méd. de Par.*, 1843, 2 s., xi, Ann. xiv, 566.

⁷ Loc. cit.

³ Buisson: De la division la plus naturelle des phénomènes physiologiques considérée chez l'homme, avec un précis historique sur M. F. X. Bichat. 344 pp., 8°, Paris, Brosson, an. x (1802), p. 326.

He was one of the founders of the Société médicale d'émulation, in the proceedings of which his earlier works were published:

Description d'un nouveau trépan (vol. ii des Mémoires de la Soc. méd. d'émulation).

Mémoire sur la fracture de l'extrémité scapulaire de la clavicule (Ibid.).

Description d'un procédé nouveau pour la ligature des polypes (Ibid.).

Mémoire sur la membrane synoviale des articulations (Ibid.).

In this latter publication he introduces his ideas concerning the distinction of tissues which were afterwards elaborated in his general anatomy. Synovial membranes are described for the first time.

Dissertation sur les membranes et sur leurs rapports généraux d'organization (Ibid.).

Next there appeared: *Mémoire sur les rapports qui existent entre les organes à formes symétriques et ceux à forme irrégulière* (Ibid.).

Here he introduces his theory of the two lives, the animal and organic.

In the same year, when barely twenty-nine years of age, he was appointed adjunct physician to the Hotel Dieu.

Finally, in 1800, he published his first great work, "*Traité des membranes en général et de diverses membranes en particulier*," Par., 8°, 1800, an admirable example of accurate, systematic anatomical description. Here he recognized the fact that not only the organism as a whole, but individual organs are composed of various tissues which may be distinguished one from another and which have notable individual characteristics. In his own words: "Chemistry has its simple bodies which by the diverse combinations to which they are susceptible, form compound bodies . . . In like manner anatomy has its simple tissues which by their combinations . . . form the organs."⁸

During the same year he published what is perhaps his most celebrated work, "*Recherches physiologiques sur la vie et la mort*."

This work consists of two parts: the first theoretical, in which he distinguishes the animal life from organic life; the second, experimental, in which he endeavors to determine the rôle of the brain, the heart and the lungs in producing death. The book contains a mass of interesting physiological observations and theories, many of which are classical. Such, for instance are his observations on the action of red blood on the life of the brain, the action of venous blood in various functions, the functional independence of the brain and the heart. His theories, though ingenious, have in many instances suffered modifications with the lapse of years, but his observations and methods of research are models for all time.

Bichat's position in the Hotel Dieu gave him increased opportunities for the study of disease in the living and for

the comparison of clinical and anatomical observations. Of these opportunities he made the most, seeking every chance to add to his experience by acting as substitute for his colleagues. In one winter he made over six hundred autopsies.

In 1801 appeared his "*Anatomie générale appliquée à la physiologie et à la médecine*," a work memorable not only for its anatomical observations but for the remarkable applications which Bichat makes of these observations to physiology and pathology. "Pathological anatomy," says Cérise,⁹ "which



was but a collection of isolated facts, is here raised to the rank of a science. . . . Medical genius has never at a single bound raised itself to so great a height." In the preface to this treatise he speaks of the methods of study which have led him to the results set forth in the work. How modern are his words! "Experiments on living animals, tests with various reagents on organized tissues, dissections, necropsies, observation of man in health and disease, these are the sources from which I have drawn; they are those of nature. Nor have I neglected those of the authors, especially of those for whom the science

⁸ Anatomie générale &c., p. lxxix.

⁹ Cérise: Œuvres du Docteur, Par., 1872, vol. ii, p. 403.

of the animal economy has been a science of facts and experience." Nature was indeed his text-book, and on one occasion he is reported to have said, "If I have made such rapid headway, it is because I have read little."¹⁰

The relations of pathological anatomy to clinical medicine have rarely been better expressed than in the following words: "We are, it seems to me, at a point where pathological anatomy must take a new flight. It is not alone the science of those changes which primarily or secondarily develop gradually in the course of chronic disease; it includes the examination of every alteration to which our parts are subject at whatsoever period of the disease. . . . How petty are the reasonings of a multitude of physicians great in the eye of the public, when investigated not by the light of their own writings, but in the cadaver! Medicine has been for a long time excluded from the exact sciences; it will have a right to be associated with them at least as regards the diagnosis of disease when one shall have combined everywhere with rigorous clinical observation the examination of the alterations suffered by our organs. . . . Of what value is clinical observation if one is ignorant of the seat of the evil? You might take notes at the bedside of the sick for twenty years from morning to night on affections of the heart, of the lung, of the abdominal viscera, &c., and there will be but confusion in the symptoms, which resting upon no certain base, will of necessity bring before you an incoherent sequence of phenomena. Open a few cadavers and that obscurity which clinical observation alone could never have dissipated will vanish in a moment from before your eyes."¹¹

Realizing early the traditional, blind, therapeutic empiricism which then prevailed, Bichat became deeply interested in the physiological action of drugs and made many careful, systematic pharmacological experiments on animals. His power for work was little short of marvelous. He began a treatise upon descriptive and pathological anatomy, working all day and writing much of the night, but with such extraordinary rapidity, accuracy and clearness, that his pages are said to have gone unread and uncorrected from his pen to the printer. Young, attractive and spirited, the few moments which he snatched for the more ardent pleasures of life, came not from his hours of work, but from those which should have been devoted to rest and recuperation—and the end was the old familiar one. One day an attack of hæmoptysis, the moments of discouragement soon forgotten, the old manner of life renewed, several repetitions of the accident, frequent "gastric disturbances," and finally, after a hot July day spent among decomposing bodies in an atmosphere so foul that it had driven all his associates from the laboratory, an attack of syncope, a fall, followed shortly by an "ataxic fever" which proved fatal on the 14th day, the 22nd of July, 1802. He died in the arms of his master's widow, to whom he had been for seven years a devoted son.

¹⁰ The Practitioner, Lond., 1896, lvi, 280.

¹¹ Bichat: Anatomie générale, &c. Nouvelle édit., Paris, 1812, Brosson et Gabon, t. 1, p. xeviii.

"He was," says Larrey,¹² "but thirty years old, but he was already the greatest physiologist of his century, as he must have been the greatest physician had he but lived twenty years more."

Bichat seems to have possessed, in addition to his genius, a character in many ways remarkable. With all his powers and his restless energy, he was a modest, affectionate and singularly lovable man, incapable of jealousy or resentment and devoted to his friends. "If," says Pariset,¹³ "we may believe Fénclon, few men have the strength to support the talents which they have received from heaven. I venture to assert that Bichat belonged to this small number of favored men." Roux,¹⁴ a companion and student, who for several years held most intimate relations with Bichat, speaks feelingly of his remarkable



and genuine modesty. But now and then some slight act would reveal to his more intimate associates the consciousness of his own strength, and once, in a tête-à-tête with Roux he said, apropos of his own career: "J'irai loin, je crois."

He died without leaving the wherewithal to provide for his funeral, but he was piously cared for by his friends, while all the professors of the faculty and 600 students followed his remains to the grave.

His death caused profound emotion throughout the medical profession. Corvisart wrote to Napoleon, then first consul:¹⁵

¹² Larrey: Discours prononcé à l'inauguration de la statue de Bichat, 8^e, Paris, 1843; also Gaz. méd. de Par., 1843, xiv, 2 s., xi, 569.

¹³ Loc. cit.

¹⁴ Gaz. méd. de Par., 1845, 2 s., xiii, 763.

¹⁵ Larrey: Inauguration de la statue de Bichat le 16 juillet, 1857, à la Faculté de Médecine de Paris. Discours de Larrey au nom de la Société médicale d'émulation.

"Bichat has just died at the age of 30; he has fallen upon a field of battle which, also, calls for courage, and which counts many a victim; he has broadened the science of medicine; no one at his age has done so many things and done them so well." And Napoleon, wishing to honor both Bichat and his master, wrote to the Minister of the Interior: "I beg that you will have placed in the Hotel Dieu a marble dedicated to the memory of Citizens Desault and Bichat which shall attest the gratitude of their contemporaries for the service which they have rendered, one to French surgery, of which he is the restorer, the other to medicine, which he has enriched by many useful works. Bichat would have broadened the domain of this science, so important and so dear to humanity, if pitiless death had not struck him down at the age of 30." The monumental stone upon the wall of the peristyle of the Hotel Dieu has for an inscription an extract from this memorable letter.

Since this time the memory of Bichat has not faded. In 1833 the Société d'émulation de Jura erected a commemorative stone by the house in which he was born in Thoirette. In 1837, David, charged with the duty of designing the frieze on the façade of the Pantheon upon which are inscribed the fine words, "Aux grands hommes la partie reconnaissante," represents Bichat dying, his head crowned with laurels. In one hand he holds a pen, and in the other the manuscript of his work, "Sur la vie et la mort."

In 1839 a monument was erected in honor of the memory of Bichat at Son-le-Saulnier, *chef-lieu* of the department of Jura, a column surmounted by a bronze bust by Huguenin.

In 1843 a fine memorial was dedicated at Bourg en Bresse. The statue by David (d'Angers) represents Bichat in an attitude of meditation, his hand seeking the impulse of the heart of a child who stands by his side—at his feet a partly dissected body and a lamp, symbolizing the light which his genius had cast upon the obscurities of life and death.

In 1857 the statue, also by David, which stands in the quadrangle of the school of medicine at Paris was unveiled.

In 1844 the city at last granted a fitting burial place for Bichat at Père-La-chaise, and on the 16th of November, 1845, forty-three years after his death, his remains were solemnly exhumed before a committee of the Medical Congress of France and carried to Notre Dame, where obsequies were held; thousands marched in the funeral procession.

And again last summer the Société Française d'histoire de la médecine celebrated the centennial anniversary of his death by a visit to his tomb, the placing of an inscription upon the house in which he died, and literary exercises in which addresses were made by a number of distinguished members of the profession. A medal has been struck in honor of the occasion.

Looking back upon the life of this truly great man one cannot but feel the inspiration of it all. And though reason remind us that 'tis a career rather to admire than to emulate, yet one must be stirred by the fine words of Levacher,¹⁶ addressed to the members of the society which owed so much to his influence and labors:

"Let Bichat be at the same time the guide and the model. He has shown what one could do in but a little while. What an example for you young men who are pursuing the same career. You are witnesses of the regret which he carries with him; of the tears which he has caused to flow, and of his triumphs; take him for an example. Be as he was, active and laborious, patient and zealous, and if you need to sustain yourselves in your work pronounce the name of Bichat. Remember above all that time adds nothing to glory and that with genius and work thirty years of life suffice to render one's name immortal."

¹⁶ Mem. Soc. méd. d'émulat., Par., 1803, v, pp. xiv-xxvii.

SOME EARLY AUTOPSIES IN THE UNITED STATES.*

BY WALTER R. STEINER, M. D.,

Formerly House Medical Officer, The Johns Hopkins Hospital.

The date of the first autopsy performed in the United States is unknown. Toner¹ from two researches decided that the one made by Johannes Kerfbyle, a Dutch physician and a Leyden graduate, on Governor Slaughter, of New York, in 1691, was the first recorded. Packard² in his entertaining book on the history of medicine in the United States describes one done in 1674 as the earliest. He also relates four others

of a little later period. There are, however, a number on record a good many years previous to these. For the references to all of them save the two performed in Maryland I am indebted to Dr. Hoadly's article.³

In September, 1639, Winthrop⁴ tells us in his history of New England that Marmaduke Percy, of Salem, was arraigned for the death of his apprentice boy. "This boy was ill-disposed, and his master gave him unreasonable correction and used him ill in his diet. After, the boy gate a

* Read before the Johns Hopkins Hospital Historical Club, October 13, 1902.

¹ Toner, Contributions to the Annals of Medical Progress, Washington, 1874, p. 57.

² Packard, The History of Medicine in the United States, Philadelphia, 1901, pp. 62-63.

³ Hoadly, Some Early Post-Mortem Examinations in New England. Proc. Conn. Med. Soc., Bridgeport, 1892, pp. 207-217.

⁴ Winthrop, The History of New England, Boston, Edition of 1853, i, p. 384.

bruise on his head, so as there appeared a fracture in his skull, being dissected after his death."

The Maryland Archives contain an interesting account of a post-mortem examination, done in 1643, on an Indian lad who was killed by his master, John Dandy.⁵ A jury composed of twelve men formed the inquest. Their foreman, George Binx, was a licentiate in physic and probably performed the autopsy. There was, however, another doctor on the jury, Robert Ellyson, a barber chirurgion. The report reads as follows:

"We find that this Indian (named Edward) came by his death by a bullett shot by John Dandy which bullett entered the epigastrium near the navell on the right side, obliquely descending & piercing the gutts, glancing on the last vertebra of the back, and was lodged in the side of Ano.

foreman

George Binx."

Fourteen years later Mr. Richard Maddokes and Mr. Emperor Smith, chirurgions, view the body of Henry Gouge, who was thought to have been killed by his master, the above John Dandy. The eleven men who formed the inquest report "that we can See nor find nothing about the Said head, but only two places of the Skin and flesh broke on the right Side of the head and the Scull perfect and sound, and not anything doth or can appear to us to be any cause of the Death of the said Gouge." They also endeavored to search the body, but could not possibly do it, it being "so noysome" to them all.⁶

Referring to the loss of Rev. Mr. Danforth's three children, in an epidemic in 1659, Cotton Mather⁷ says that "the (until then unknown) malady of 'bladders in the wind-pipe' invaded and removed many children; by opening of one of them the malady and remedy (too late for very many) were discovered." Diphtheria and tracheotomy are probably here implied.

Elsewhere in his *Magnalia*, Mather⁸ makes the following note: "As for Mr. Stone if it were *metaphorically* true (what they *proverbially* said) of Beza, that 'he had no gall,' the physicians that opened him after his death found it *literally* true of this worthy man." This autopsy on Rev. Mr. Stone, who was assistant pastor of the first church of Christ in Hartford, was probably performed by Dr. Bryan Rossiter, of Guilford, Conn., in July, 1663. Rossiter had previously prescribed for Stone, and had been paid ten pounds for it by the town of Hartford.⁹

"We do not know where Dr. Rossiter obtained his medical education, but Dr. Hoadly thinks it was in England. He came to this country, in 1630, with his father, and was made a freeman a year later of Dorchester, Mass. In 1639 he

moved to Windsor, Conn., became town clerk there, and was admitted to practice in the State of Connecticut by the General Court, 'being first tried and approved by Mr. Hooker, Mr. Stone, and old Mr. Smith of Wethersfield, in the face of the said Court.'¹⁰ He migrated later to Guilford, and was continually in hot water with the people of the town about the union of New Haven Colony with Connecticut. He finally moved to Killingworth (now Clinton), but soon returned and died in Guilford, in 1672. "His practice was very large and he was frequently called to see cases in all parts of the State."

In the following extract from a letter to his daughter and her husband, on September 24, 1669, we get some idea of his busy practice: "We have had a sore visitation again by sickness and mortality here in Guilford this summer, as the last. Our graves are multiplied and fresh earth heaps are increased. Coffins again and again have been carried out of my doors. I have taken up a lot amongst the tombs in the midst of them."¹² During this "visitation" he lost his wife, his daughter and a grandchild.

For some reason or other he incurred the enmity of Gov. Leete, of Guilford, and whenever medical services were required in Leete's family Gov. Winthrop, that worthy colonial physician and statesman, was appealed to for aid. In 1658, Leete¹³ details to Winthrop an eye trouble which affected his son, Peregrine, aged nine weeks, and in a later letter¹⁴ asks Winthrop's directions concerning cordial powder the latter furnished Leete's wife by John Crane, for Graciana their daughter. It seems that no information accompanied the powder about the taking of it. Leete says: "Truly one of the most needfull directions is how to make her willing & apt to take it; for though it seemes very pleasant of itselife, yet is she grown so marvellous aukward & averse from takeing it in beer. Wherefore I would entreat you to prescribe to us the varyety of wayes in which it may be given soe effectually; wee doubt els it may doe much lesse good, being given by force only." On another occasion he writes in a foot-note,¹⁵ "my wife entreats some more of your physick, although shee feareth it to have very contrary operations in Mr. Rossiters stomach"¹⁵—a suggestion that professional jealousy existed in those days.

Rossiter's fame as a physician called him also to Hartford, in 1662, to ascertain by an autopsy whether the child of John Kelly was bewitched. The child was a girl, aged eight years, who "was taken in the night following Sunday, March 23, 1661-2, with a violent attack of something like bronchopneumonia. In her delirium she cried out against Goody Ayres as choking her and afflicting her, and the last words the child

¹⁰ Stiles, *Ancient Windsor, Hartford*, 1891, i, p. 453. The above quotation is taken from a letter Rossiter wrote to Gov. John Winthrop, Jr., in 1669. It is given in full in the *Bulletin of the N. Y. Public Library*, 1899, iii, pp. 402-404.

¹¹ Steiner, *History of Guilford, Conn., Baltimore*, 1897, pp. 477-478.

¹² Smyth, Dr. Bryan Rossiter of Guilford, Conn., and his descendants. *N. E. Hist. and Gen. Reg.*, Boston, 1901, lv, pp. 149-154.

¹³ Mass. Hist. Coll., Boston, 1865, vii, 4 Series, p. 539.

¹⁴ Mass. Hist. Coll., Boston, 1865, vii, 4 Series, p. 540.

¹⁵ Mass. Hist. Coll., Boston, 1865, vii, 4 Series, p. 548.

⁵ Provincial Court, i, pp. 254-255 and 260.

⁶ Provincial Court, ii, pp. 524-525. For a fuller account of these two autopsies see my paper entitled, *A Contribution to the History of Medicine in the Province of Maryland*. *Johns Hopkins Hospital Bulletin*, 1902, xiii, pp. 192-198.

⁷ Mather, *Magnalia*, Hartford, Edition of 1853, i, p. 437.

⁸ Mather, *Magnalia*, Hartford, Edition of 1853, ii, p. 64.

⁹ Conn. Hist. Soc. Coll., Hartford, 1897, vi, p. 108.

spoke were to that effect.”¹⁶ Following the superstition of those times, both her parents and the town's people thought that her death was due to some preternatural cause. The town accordingly summoned a jury of six men to inquire of the cause or manner of her death. They report on March 31, 1662:

“We, whose names are underwritten, were called forth and desired to take notice of the dead child of John Kelley, do hereby testify that we saw as followeth: The child was brought forth and laid upon a form by Goodwife Rescoe and Goodwife Whaples, and the face of it being uncovered, Goodwife Ayres was desired by John Kelly to come up to it and to handle it. The child having purged a little at the mouth, Goodwife Ayres wiped the corner of the child's mouth with a cloth, and then she was desired to turn up the sleeve of the arm, and she did endeavor to do it, but the sleeve being somewhat strait she could not well do it. Then John Kelly himself ripped up both the sleeves of the arms, and upon the backside of both arms, from the elbow to the top of the shoulders were black and blue, as if they had been bruised or beaten. After this, the child was turned over upon the right side and so upon the belly, and then there came such a scent from the corpse as that it caused some to depart the room, as Gregory Wolterton and George Grave. Then the child being turned again and put into the coffin, John Kelly desired them to come into the room again to see the child's face, and then we saw upon the right cheek of the child's face a reddish tawny great spot, which covered a great part of the cheek, it being on the side next to Goodwife Ayres where she stood.

This spot or blotch was not seen before the child was turned, and the arms of the child did appear to be very limber in the handling of them.

Gregory Wolterton,	The Mark of Thos. Catlinge,
Thomas Bull,	Nath. Willett,
Joseph Nash,	George Grave.”

On the same day, that is five days after the child's death, Dr. Rossiter opened the body at the grave, described the appearance of the organs, noted the absence of rigor mortis, and mistook the signs of beginning decomposition for something supernatural, in the following protocol:

“All these particulars underwritten I judge preternatural.

¹⁶ Hoadly, *op. cit.* I have been unable to consult the original papers. Dr. Hoadly says some of the material was obtained from Mr. John Carter Brown, of Providence, R. I. The Librarian, Mr. Winship, of the John Carter Brown Library, was unable to find any of the manuscripts for me.

Upon the opening of John Kelley's child at the grave I observed:

1. The whole body, the musculous parts, nerves and joints were all pliable, without any stiffness or contraction, the gullet only excepted. Experience of dead bodies renders such symptoms unusual.

2. From the costal ribs to the bottom of the belly in the whole latitude of the womb, both the scarf skin and the whole skin with the enveloping or covering flesh had a deep blue tincture, when the inward part thereof was fresh, and the bowels under it in true order, without any discoverable pecancy to cause such an effect or symptom.

3. No quantity or appearance of blood was in either venter or cavity, as belly or breast, but in the throat only at the very swallow, where was a large quantity as that part could well contain, both flesh and fluid, no way congealed or clodded, as it comes from a vein opened, that I stroke it out with my finger as water.

4. There was the appearance of pure fresh blood in the backside of the arm, affecting the skin as blood itself without bruising or congealing.

5. The bladder or gall was all broken and curded, without any tincture in the adjacent parts.

6. The gullet or swallow was contracted, like a hard fish bone, that hardly a large pease could be forced through.

Br: Rossiter.”

Fortified by these findings John Kelly and Bethia, his wife, testify in open court on May 13, 1662, as to the alleged persecutions of their child by Goody Ayres, according to the child's testimony. They state that the child after eating some hot broth with the wife of William Ayres, against their wishes, complained of pain at her stomach. Her father gave her some angelica root which yielded her “present ease,” but the relief was only temporary as some time later she died. Fearing then an indictment Goody Ayres fled suddenly with her husband, leaving their son, aged eight, behind them as well as all their possessions. We know nothing of their subsequent history.

At a General Assembly held at Hartford, March 11, 1662-63, the court allowed “unto Mr. Rossiter twenty pounds in reference to openinge Kellies child and his paynes to visit the Dep-Governo^r and his paynes in visiting and administering to Mr. Talcot.”¹⁷

¹⁷ Conn. Col. Records, Hartford, 1853, i, p. 396.

THE JOHNS HOPKINS HOSPITAL BULLETIN.

The Hospital Bulletin contains details of hospital and dispensary practice, abstracts of papers read, and other proceedings of the Medical Society of the Hospital, reports of lectures, and other matters of general interest in connection with the work of the Hospital. It is issued monthly.

Volume XIII is now completed. The subscription price is \$1.00 per year. The set of thirteen volumes will be sold for \$32.00.

A CASE OF NEURO-FIBROMATOSIS (VON RECKLINGHAUSEN'S DISEASE) WITH PARALYSIS AND MUSCULAR ATROPHY OF ARMS AND LEGS.¹

BY H. M. THOMAS, M. D.,

Neurologist to the Johns Hopkins Hospital.

Dr. Osler has asked me to demonstrate this patient to the Society, on account of the very great interest of the nervous symptoms which she shows.

The patient is a woman from West Virginia, Cyrena W., æt. 51, single; admitted Oct. 17, 1902, to Dr. Osler's clinic; Med. No. 14,942. Complains of pain and stiffness all over.

The family history is unimportant. She has never heard of a case similar to hers occurring in the family.

She is the eldest of nine children. Has been always rather sickly. Went very little to school and has worked hard on a farm all her life. She had scarlet fever in infancy; diphtheria and measles when 27; "grippe" six years ago. Is subject to occasional headaches. Menstruated first at 16; was fairly regular from then up to 48, when menopause occurred.

Tumors of the skin have been present since early girlhood, but she paid little attention to them and can give little definite information about them. She has, however, noticed a great increase in the last four or five years and she has consulted a physician about them. Those on the face appeared last. She has noticed dark bluish spots on the body for many years.

About five years ago she began to suffer from a burning, stinging pain in her left ankle. This was not constant, but recurred from time to time and was so intense that at first she thought her skirts were on fire. The pains gradually affected more and more of the leg, extending up to the hip and back, the right leg being affected after the left. This pain was at first very severe; each attack would come on very suddenly and last only a second or two. She describes them very much as a tabetic describes lightning pains. For one or two years there has been some pain of a similar character in her arms and shoulders. There are no pains in the face except those which the patient refers to defective teeth.

With the onset of the pains, the patient began to have some difficulty in walking. Her brother first noticed that she limped a little, dragging one leg. The muscular weakness increased gradually and two years ago she had a good deal of difficulty in getting about, and for the last year has been entirely unable to walk. During this year she has spent her time between her bed and her chair, and up to a few weeks ago was able to get from bed to chair unassisted. For about four months her legs have been contracted at the knees and hips. For a little less than a year she has noticed some weakness in her arms, commencing in the right. This has gradually increased, and for about five months she has been unable to knit or sew, and has had difficulty in dressing herself. She has not dressed her hair for several months, but can still feed herself.

From the very first she has noticed muscular twitchings and from time to time she has had some singing in the ear.

She made no complaint about her bladder before admission, but since then has often had to be catheterized, although she is able, at times, to voluntarily pass a little urine.

For the last two or three months she has noticed some difficulty in swallowing—chokes easily. There has been no regurgitation through the nose. For about the same length of time she has noticed that her voice has become thick and weak. She complains of no trouble with her eyes or ears except slight tinnitus.

As you see, the patient is a poorly nourished woman, with a careworn expression. Scattered irregularly over the face, trunk, arms and legs there are numberless little tumors. These vary in size from the little ones, about as large as a pin-head, to those as large as a good-sized cherry, and some few even larger. (See Plate XIII.) Some of these tumors are definitely pedunculated and others are sessile. There are numerous pigmented areas scattered over the body and in several spots the skin has a bluish look, which is apparently due to the coming through of the nodular tumors. Some of the larger tumors feel lobulated and nodular, but most of the masses have a homogeneous consistency. Two of the tumors were excised for histological examination and show the ordinary structure of neurofibromata.

In so far as the skin manifestations go, the patient presents a typical picture of cutaneous neuro-fibromatosis. No definite tumors on the nerve-trunks have been made out, nor have we felt any definite plexiform growths, although the subcutaneous fat below the popliteal space has a curious cord-like feel.

Examination of the nervous system, however, reveals a very remarkable condition, and it is in this respect that I particularly wish to call your attention to the case. The patient is apathetic and somewhat dull. She speaks in a thick, muffled voice, suggesting some weakness of the laryngeal muscles. Her answers seem quite unreliable, especially in regard to dates. I could find no definite abnormality of any of the cranial nerves. There are no changes in the retina or the optic nerve. No definite disturbances of hearing could be made out, although the patient does complain from time to time of subjective auditory sensations. The muscles of the pharynx appear to act well; the tongue is protruded straight, but is slightly tremulous.

The muscles of the neck are strong but all the muscles moving the arms are more or less weak; there is no absolute loss of power in any of these muscles. The muscles of the arms are generally atrophied, but particularly so in the intrinsic muscles of the hand. Fibrillary tremors are noticed in the muscles of both arms, and I think can be seen by those who

¹ Presented to The Johns Hopkins Medical Society, November 17, 1902.